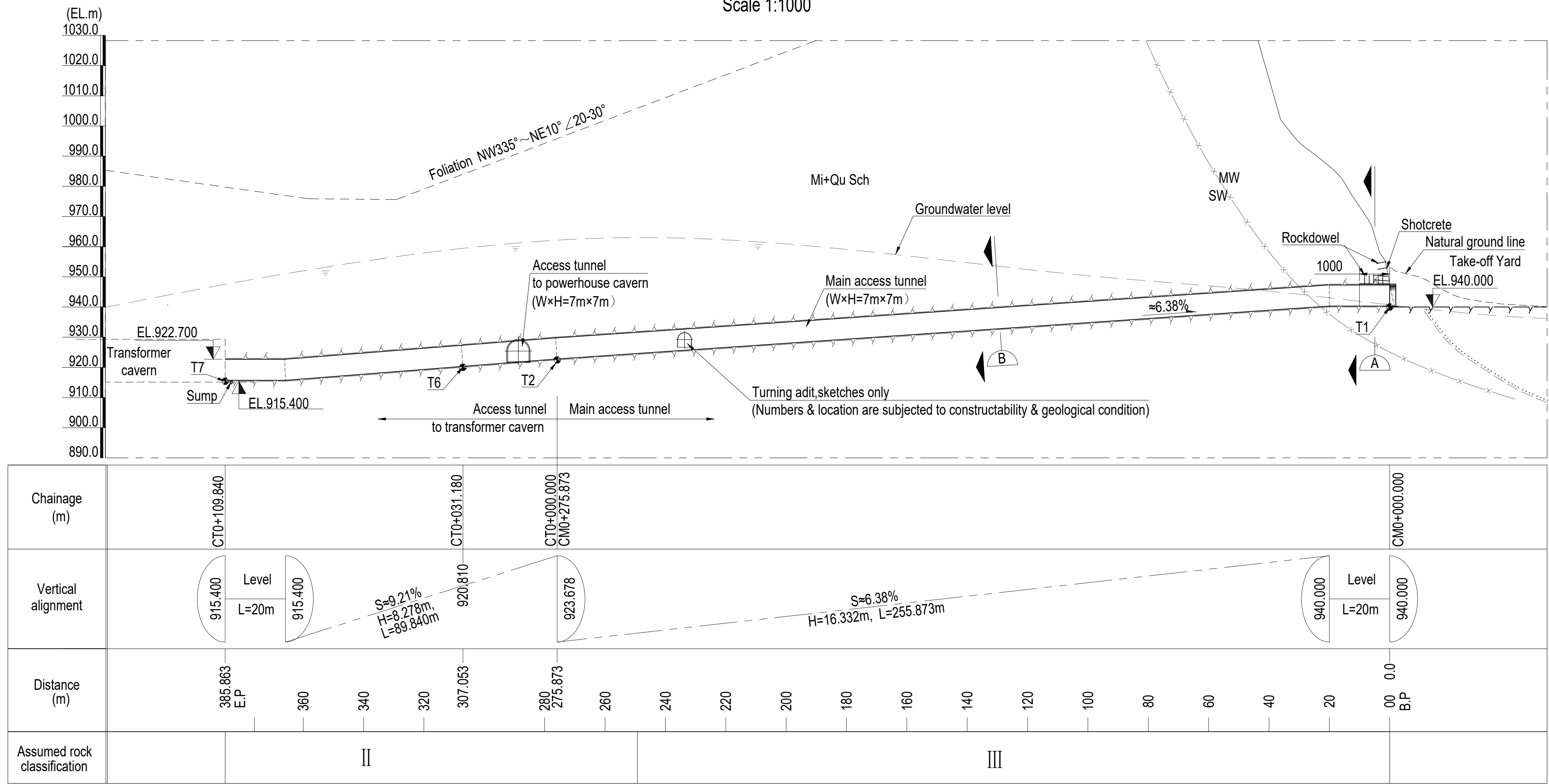


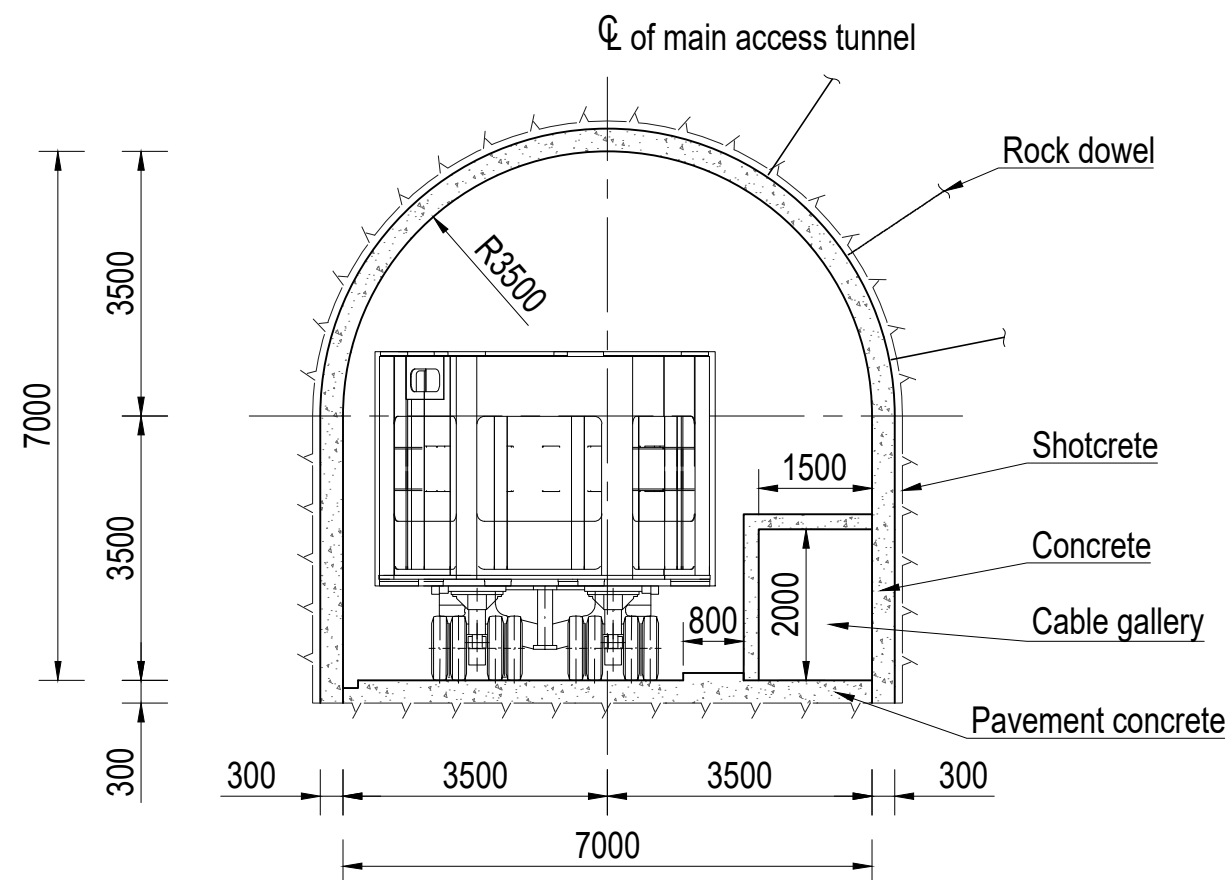


LONGITUDINAL PROFILE OF ACCESS TUNNEL (TO TRANSFORMER CAVERN)

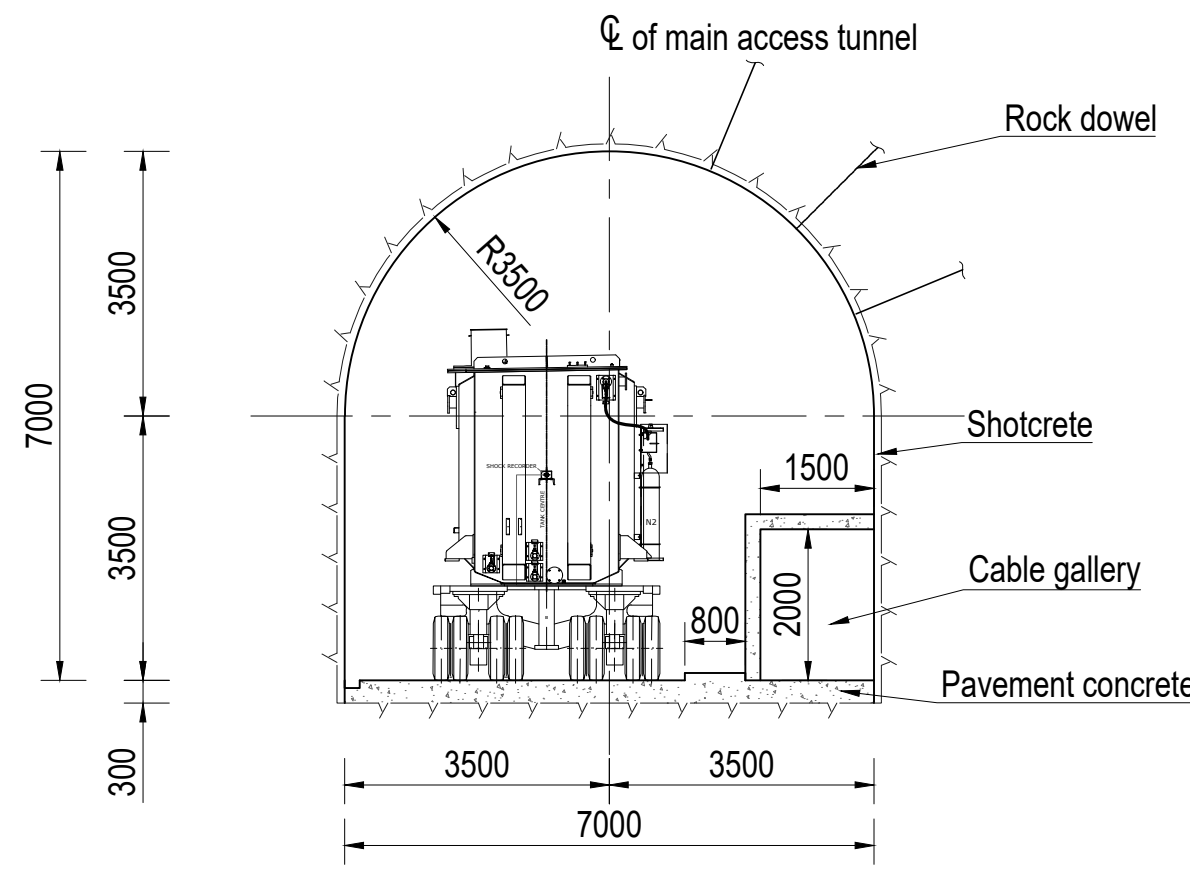
Scale 1:1000



SECTION A-A
(FOR PORTAL AND ROCK IV) 1:100



SECTION B-B
(FOR ROCK I, II, III) 1:100



COORDINATES OF CONTROL POINT

| Point No. | Coordinates | | | Remark |
|-----------|-------------|-------------|---------|--|
| | E(m) | N(m) | Z(m) | |
| W10 | 619126.258 | 3107206.255 | | Centerline of vertical pressure shaft |
| W15 | 619078.651 | 3107046.174 | 906.000 | Centepoint of unit 1# |
| T1 | 618776.979 | 3106769.119 | 940.000 | Portal of access tunnel |
| T2 | 618927.283 | 3107000.451 | 923.678 | Plane turning point of access tunnel to transformer cavern |
| T3 | 618955.564 | 3107043.980 | 920.367 | Plane turning point of access tunnel to powerhouse cavern |
| T4 | 618982.063 | 3107057.605 | 918.378 | Plane turning point of access tunnel to powerhouse cavern |
| T5 | 619050.048 | 3107054.561 | 915.400 | Intersection of access tunnel and powerhouse cavern |
| T6 | 618953.781 | 3107014.076 | 920.810 | Plane turning point of access tunnel to transformer cavern |
| T7 | 619032.362 | 3107010.558 | 915.400 | Intersection of access tunnel and transformer cavern |

OCCURRENCE OF JOINTS

| Joint No. | | | |
|----------------|------|-----|------|
| J1(foliation) | 340° | 20° | |
| J2 | 235° | 70° | N3°E |
| J3 | 25° | 60° | |

MECHANICAL PARAMETER OF JOINTS

| Joint type | JRC | JCS, (MPa) | C, (MPa) | Φ, (°) |
|-----------------------------|-----|------------|----------|--------|
| Foliation | 6 | 70 | 0.20 | 35.0 |
| Lithoclasts cemented(J2、J3) | 8 | 50 | 0.15 | 28.8 |

NOTE

1. All dimensions are in millimeters, and coordinates, chainages & elevations are in meters.

Scale:

1:1000 0 10 20 30 40 50m

1:100 0 1 2 3 4 5m

REFERENCE DRAWINGS

| | |
|------------------------|--|
| UT1-C-300-CVL-DG-40001 | GENERAL LAYOUT DRAWING OF POWERHOUSE AREA |
| UT1-C-090-CVL-DC-64001 | SURROUNDING ROCK STABILITY CALCULATION OF ACCESS TUNNEL FOR POWERHOUSE |

SYMBOL AND LEGEND

FOR APPROVAL

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| REV. NO. | DATE | DESCRIPTION | DRAWN | CHKD. | APPD. |
|----------|-------------|-------------|------------|-----------|----------|
| 0B | 06.MAY.2022 | AS RN-0076 | WANG X.H. | ZHANG F. | LIU W.G. |
| 0A | 28.JUL.2021 | First issue | ZHANG J.Q. | WANG H.Q. | LIU W.G. |

PROJECT TITLE

Upper Trishuli-1 HEP (216MW)

OWNER
NWEDC
NEPAL WATER AND ENERGY DEVELOPMENT CO. (PVT.) LTD.

OWNER'S ENGINEER
TRACTEBEL
ENGINEER

CONTRACTOR
DOOSAN Enerbility

DRAWING TITLE

LAYOUT OF ACCESS TUNNEL TO POWERHOUSE (2/3)

| INDEX | DRAWING NUMBER | SHEET NO. | REV. NO. |
|-------|---------------------------|-----------|----------|
| A | UT1-C-090-CVL-DG-64001-02 | 2 OF 3 | 0B |

